

Page 3, between lines 2 and 3, insert:

SUMMARY OF THE INVENTION

Page 4, between lines 2 and 3, insert:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 4, between line 11 and 12, insert:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

IN THE CLAIMS

Please amend Claims 1-11 to read as follows:

--1. (Amended) An electrical transformer comprising:

a tank containing transformer fluid;

a transformer core and winding subassembly disposed in said transformer fluid within and spaced apart from said tank; and

active means for varying a volume of said transformer fluid in order to reduce pressure waves generated by a vibration of said core and winding subassembly during electromagnetic operation, said active means being disposed in said transformer fluid within said tank, wherein said active means comprise at least a cell having:

a main body and a corrugated membrane operatively connected to said main body in order to realize a sealed container able to maintain a low pressure atmosphere inside said container; and

actuating means placed inside said sealed container and solidly connected to said corrugated membrane for vibrating said corrugated membrane to generate pressure waves to change the volume of said transformer fluid in proportion to an amplitude and frequency of the pressure waves generated by the vibration of said core and winding assembly.

2. (Amended) An electrical transformer as in claim 1, further comprising:
elastic means placed inside said cell, operatively connecting said corrugated membrane and said main body.
3. (Twice Amended) An electrical transformer as in claim 1, wherein said actuating means comprise one or more piezoelectric stack elements.
4. (Twice Amended) An electrical transformer as in claim 1, wherein said actuating means are connected to controlling means placed outside said tank.
5. (Amended) An electrical transformer as in claim 4, wherein said controlling means are connected to detection means for detecting pressure waves generated by the vibration of said core and winding subassembly during electromagnetic operation and transmitting a signal indicative of the amplitude and frequency of said pressure waves to said controlling means.
6. (Amended) An electrical transformer as in claim 5, wherein said detection means are placed inside the tank of said transformer.
7. (Amended) An electrical transformer as in claim 5, wherein said detection means are placed outside the tank of said transformer.
8. (Amended) An electrical transformer as in claim 7, wherein said detection means comprise one or more transducers for detecting the vibrations of said tank generated by said pressure waves.
9. (Amended) An electrical transformer as in claim 6, wherein said detection means comprise one or more pressure transducers.
10. (Amended) A method for reducing pressure waves generated by a vibration of a core and winding subassembly during electromagnetic operation of an electrical transformer, the transformer having a tank containing transformer fluid, the transformer core and winding subassembly disposed in said transformer fluid within and spaced apart from said tank, and

active means for varying a volume of said transformer fluid in order to reduce pressure waves generated by the vibration of said core and winding subassembly during electromagnetic operation, said active means being disposed in said transformer fluid within said tank, said active means including at least a cell having a main body and a corrugated membrane operatively connected to said main body in order to realize a sealed container for maintaining a low pressure atmosphere inside said container, and including actuating means placed inside said sealed container and solidly connected to said corrugated membrane for vibrating said corrugated membrane to generate pressure waves to change the volume of said transformer fluid, said method comprising:

detecting pressure waves generated by the vibration of said core and winding subassembly of said electrical transformer during electromagnetic operation;

transmitting signals, indicative of an amplitude and frequency of said pressure waves, to a controlling means;

analyzing said signals transmitted by said detection means and transmitting signals for driving said actuating means comprised in each of said cells; and

generating, through the vibration of the corrugated membrane of each of said cells, transformer fluid pressure waves, varying in amplitude and frequency in proportion to an amplitude and frequency of the pressure waves generated by the vibration of said core and winding assembly, able to regulate the volume of said transformer fluid .

11. (Amended) An active device, for regulating a volume of a fluid in which a device is disposed, through a generation of fluid pressure waves varying in amplitude and frequency, said device comprising:

a main body and a corrugated membrane operatively connected to said main body in order to realize a sealed container able to maintain a low pressure atmosphere inside said container; and

actuating means placed inside said sealed container and solidly connected to said corrugated membrane for vibrating said corrugated membrane to generate pressure waves to change the volume of said transformer fluid in proportion to an amplitude and frequency of the pressure waves generated by the vibration of the core and winding assembly.

Please add new Claims 12-20 as follows:

12. (New) An electrical transformer comprising:

a tank containing transformer fluid;

a transformer core and winding subassembly disposed in said transformer fluid within and spaced apart from said tank; and

an active element configured to vary a volume of said transformer fluid in order to reduce pressure waves generated by a vibration of said core and winding subassembly during electromagnetic operation, said active element being disposed in said transformer fluid within said tank, said active element including at least a cell having:

a main body and a corrugated membrane operatively connected to said main body to realize a sealed container configured to maintain a low pressure atmosphere inside said container; and

an actuating member placed inside said sealed container and solidly connected to said corrugated membrane and configured to vibrate said corrugated membrane to generate pressure waves to change the volume of said transformer fluid in proportion to an amplitude and frequency of the pressure waves generated by the vibration of said core and winding assembly.

13. (New) An electrical transformer as in claim 12, further comprising:

an elastic member placed inside said cell, operatively connecting said corrugated membrane and said main body.

14. (New) An electrical transformer as in claim 12, wherein said actuating member comprise one or more piezoelectric stack elements.

15. (New) An electrical transformer as in claim 12, wherein said actuating member is connected to a controller placed outside said tank.

16. (New) An electrical transformer as in claim 15, wherein said controller is connected to a detector configured to detect the pressure waves generated by the vibration of said core and winding subassembly during electromagnetic operation and to transmit a signal indicative of the amplitude and frequency of said pressure waves to said controller.

17. (New) An electrical transformer as in claim 16, wherein said detector is placed inside the tank of said transformer.

18. (New) An electrical transformer as in claim 16, wherein detector is placed outside the tank of said transformer.

19. (New) An electrical transformer as in claim 18, wherein said detector comprises one or more transducers configured to detect the vibrations of said tank generated by said pressure waves.

20. (New) An electrical transformer as in claim 17, wherein said detector comprises one or more pressure transducers.